

11 October 2017

City Hall
100 Queen Street West
Toronto, ON M5H 2N2

Attention: Planning and Growth Management Committee
Re: PG23.9 Toronto Green Standard Review and Update

Dear Planning and Growth Management Committee

The Ontario Passive House Group wholeheartedly embraces and endorses the adoption of the Toronto Green Standard (TGS) Version 3 performance measures as described in the City of Toronto's Zero Emissions Building Framework. We commend the City and its partners for developing this exciting, forward-thinking Framework, which would set the stage for substantive positive changes in the building sector.

The need for pressing action on climate change is clear. The City of Toronto's commitment to GHG emissions reduction by 80 percent of 1990 levels by 2050 is a demonstration of the City's commitment to action. The proposed changes to the Toronto Green Standard directly support this commitment, by laying out a clear path to near or net zero carbon new construction. The top tiers of the TGS intentionally align with the Passive House Building Standard, an internationally recognized standard for nearly zero carbon buildings.

The Passive House Building Standard (the "Standard") is a high-performance building standard that delivers optimal comfort, occupant health, and climate-resiliency. It achieves energy and carbon savings of up to 70-80% compared to conventional buildings¹. The Standard has a 25 year track record of delivering promised carbon reductions, with ten thousands of constructed buildings throughout the world. There is, in principal, no limit to the types of buildings to which it can be applied. Homes, offices, schools, manufacturing facilities, police stations, and community centres, among others, have all been built to the Standard.

Two years ago, the Passive House Institute (the "PHI") investigated the long-term performance of the very first Passive House, built in Darmstadt, Germany in 1991. They discovered that the performance of its various elements (wall insulation, glazing, ventilation, airtightness etc) remained undiminished over this period. This contrasts starkly with conventional buildings, which fall well short of their expected performance, deteriorate over time and frequently require substantial renovations.

¹ Further information on the Standard and its long-term performance can be found here:

<http://passipedia.org/>

http://passipedia.org/operation/operation_and_experience/measurement_results/energy_use_measurement_results

OntarioPH

Jurisdictions across North America have recognized the benefits and potential of the Standard. Most notably, the City of Vancouver has recognized the Standard as a viable alternative in rezoning areas for achieving GHG emissions reductions. The City also has adopted a Zero Emissions Buildings policy, which requires City-owned projects achieve Passive House certification. In BC, the government has enacted the BC Step Code which lays a pathway towards Passive House performance levels². South of the border, the numerous state housing finance agencies recognize the Standard in their funding priorities³.

International activities mirror the developments in Canada. Since January 1, 2015, the City of Brussels has mandated Passive House performance levels for all new buildings and major retrofits⁴. The City worked closely with industry and consumers over several years to take the city from the European Union's worst performing country to its leader. The Framework can play a key role in a similar transition in the City of Toronto. It truly has the potential to reshape the building industry, locally and beyond.

There is a growing appetite within the City to adopt Passive House performance levels, as evidenced by some projects underway. This includes a 700+ bed building being developed for the University of Toronto, North America's largest Passive House student dormitory.

The Ontario Passive House Group (OntarioPH) works with industry and academic partners to promote, educate, and advocate for the adoption of Passive House design and construction principles throughout the construction industry. We would be delighted to work collaboratively with the City and other stakeholders in supporting the implementation of the Framework.

By adopting the Framework, the City of Toronto has a tremendous opportunity to demonstrate leadership in healthy, comfort, affordable, climate-friendly buildings. We encourage the City to champion the Framework for the benefit of the city, the province, the nation, and the planet.

Sincerely



Andrew Peel
President

² <http://www2.gov.bc.ca/gov/content/industry/construction-industry/building-codes-standards/energy-efficiency/energy-step-code>

³ Examples include:

<http://www.nyshcr.org/Topics/Developers/MultifamilyDevelopment/GreenGuidelines.htm>

http://www.phfa.org/forms/multifamily_application_guidelines/guidelines/mpg_03.pdf

⁴ https://passreg.eu/download.php?cms=1&file=D_2_1c_Brussels_SM_EN.pdf